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Is bank lending corruption self-regulatory?

Erotokritos Varelas [a*]

[a] University of Macedonia, Department of Economics, Thessaloniki, Greece.
*Corresponding author's email address: varelas@uom.edu.gr

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ABSTRACT

This article puts forward the possibility that bank-client corruption tends to raise lending rates. If it does and if bank-official corruption counteracts this tendency, bank lending corruption might be seen as a self-regulatory phenomenon, having little if none at all influence on the real economy. An anti-lending corruption policy is deemed to be necessary only under a zero-lower-bound associated monetary policy and in any case, it should treat the two types of banking-sector corruption symmetrically. The negative effects of bank sector fraud on economic growth should be related to the large volume of cybercrime and money laundering rather than to fraud surrounding bank lending.

1.   Introduction

The liberalization of trade and globalization have induced a quite rapid growth of banking and of the broader financial sector, and with it the amount of the related fraud. Pricewaterhousecoopers' surveys (PwC, 2014) report, for example, that fraud in this sector is much higher than in other industries, and classify it in terms of asset misappropriation, cybercrime, money laundering, accounting fraud, and bribery and corruption. This paper focuses on the fraud surrounding bank lending. There can be borrower fraud from the viewpoint of making through fraudulent documentation the lending bank commit adverse selection favoring the particular borrower. And, there can be lender corruption mainly through bribery of various types. For the purposes of this paper, there is fraud only if it is punishable by the law; otherwise dishonest from honest behavior cannot be discerned analytically. For example, fraudulent documentation in the form of accounting fraud like concealing liabilities and misstatements may be punishable but "shot gunning", i.e. many loans from many banks for the same purpose with the total borrowing exceeding the actual value associated with this purpose, is not.

The reason this paper focuses on the interaction between bank-client and bank-official lending corruption is to separate their impact on the real economy from the impact of the other forms of bank sector fraud whose adverse effect on growth has been documented extensively (Park 2012). But, in so far as the nexus between corruption and bank lending is concerned, the focus of the literature has been on the connection between corruption and bad loans (Goel and Hasan 2011) or on the corruption of bank officials (Weill 2011). This short article puts forward the possibility that bank-client/borrower corruption raises lending rates. This result is then combined with the finding of the relevant literature (Solomon 2005) that bank-official corruption lowers lending rates, to argue that bank lending corruption is in the overall self-regulatory from the point of view that it does not influence the real economy. Consequently, the adverse of effects of bank sector fraud on real economic activity should be stemming

from cybercrime and money laundering due to their large volume (PwC 2014). In the next section, we discuss the possibility of self-regulatory bank lending corruption formally arriving at the conclusion that an anti-corruption effort in the banking sector is a must only when the LM curve is rendered horizontal by monetary policy. The third section concludes this note with the remark that (i) any such effort for any reason would be destabilizing if it did not treat bank-client/borrower and bank-official corruption symmetrically, and (ii) the crackdown on cybercrime and money laundering is what mainly the authorities should have in mind when contemplating bank sector fraud.

2.   Theoretical considerations

There can be two kinds of firms, the corrupt, C-firms, and the non-corrupt, N-firms. In any case, bank borrowing is the only source of financing an investment project, $I = 1$, now, at t=0, which project would yield to an N-firm either U^G or $U^B < U^G$ next period, at t=1, depending on whether the state of the economy is good, G, or bad, B, respectively. The future state of the economy is uncertain, with f being the probability to be G and with probability $(1 - f)$ of an N-firm of going bankrupt and defaulting in case U^B is experienced. So, the expected yield of an N-firm is:

$$EU_N = fU^G + (1 - f)U^B \quad (1)$$

where E is the expectations operator. An N-firm will decide to become a C-firm in order to avoid the uncertainty of the economic environment and possible bankruptcy at t=1 so that it can borrow again some percentage $h < 1$ of $I = 1$. This will be the case if:

$$EU_C \geq p[fU^G + (1 - f)U^B] + ph[fU^G + (1 - f)U^B] \quad (2)$$

where $(1 - p)$ is the probability that is penalized for its corruptive activities. The bank is never punished because it does not collaborate with C-firms whose kind of corruption would incriminate the bank too, say for facilitating fraud. Of course, we have to have (2)≥(1) which implies that:

$$h \geq (1 - p)/p \quad (3)$$

So, it will be worthwhile for an N-firm to turn into a C-firm if it can borrow at t=1 according to (3), which will be the case if $p \geq 1/2$ because:

$$1 > h \geq (1 - p)/p \Rightarrow 1 \geq (1 - p)/p \Rightarrow p \geq 1/2 \quad (4)$$

But, if the C-firm is actually punished, it will go bankrupt and default. Actually, if all firms are alike, they will all be of one only type depending on whether (3) and (4) hold or not. Therefore, policy-wise, it is not necessary to be hunting bank-client corruption with the gun to make it unworthy as a venture; it only suffices to identify that critical value of p that makes firms be indifferent between corruption and non-corruption, and enforce in practice a slightly lower p. In reality, firms are not alike and what this policy involves in practice is the containment of the propagation of corruption by making an example out of "big-fish" cases.

Anyway, as far as the banking sector is concerned, banking with C-firms, C-banking, entails higher intermediation costs than N-banking with non-corrupt firms, $k_C > k_N$, because C-banking imposes higher equity capital against the expectation of more roll-over lending in the future. Suppose that the banking sector is competitive, breaking just even at equilibrium.So, the expected profit of a bank from an N-firm is $f(r_N - k_N)$ and from a C-firm $p(1 + h)(r_C - k_C)$, which h has to be as in (3) with the equality sign because the bank does know when it is dealing with a C-firm and elementary prudency on its part suggests that it should not risk lending according to a higher h. Hence, $p(1 + h) = 1$ and total bank profit will be:

$$E\Pi = f(r_N - k_N) + (r_C - k_C) \quad (5)$$

if, of course, profit is zeroed based according to firm-type:$r - k_C = 0 \Rightarrow r = k_C$ and $r - k_N = 0 \Rightarrow r = k_N$, and since $k_C > k_N$, the two former r should be greater than the latter, which is what the notation $r_C > r_N$ reflects. (5) says that avoiding the bank to lend according to an $h \geq (1 - p)/p$ and hence, have p entering $E\Pi$, it secures itself from the event of having the C-firm punished. Also, if the bank did not discriminate between the two types of firms:

$$E\Pi' = r(1 + f) - fk_N - k_C < E\Pi \Rightarrow r(1 + f) < r_C + fr_N (6)$$

which is true and $E\Pi' < 0$. If this was not the case, setting $E\Pi' = 0$ would yield that:
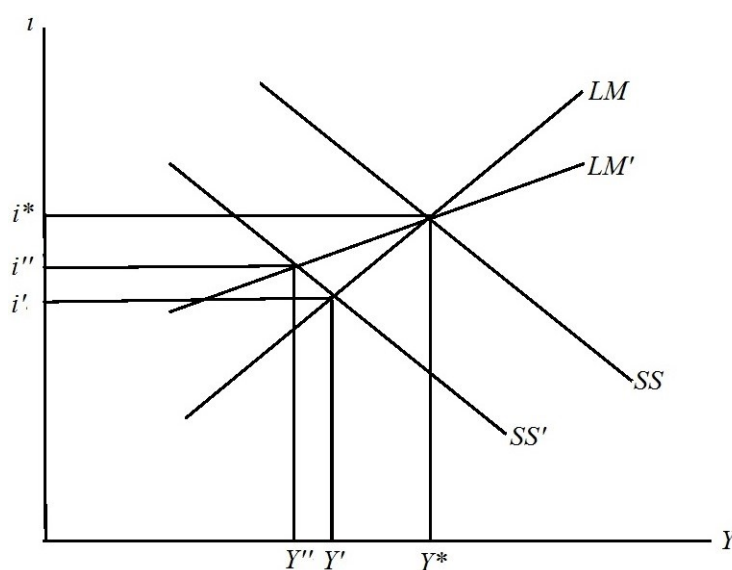$$r = (fk_N + k_C)/(1 + f)$$

with $r_C > r > r_N$. So, $r_C + fr_N > r + fr_N$ and $r(1+f) > r + fr_N$, and subtracting the second inequality from the first one gives (6), which contradicts that $E\Pi' = 0$. So, if all firms are alike and of one thereby type depending on whether (3) and (4) hold or not, bank rates will be either $r_C = k_C$ or $r_N = k_N$, accordingly. In reality, firms differ among them, and what this result implies in practice is that lending rates are on the average higher when corruption is present.

It appears at first sight that fighting bank-client/borrower corruption would help lower interest rates as well, which suggests that more than being after the "big-fish" should be done during a recession when reduced rates are important in rekindling the economy. Nevertheless, Solomon (2005) notes that bank officials are corrupt too, and do keep rates at lower levels counteracting thus the tendency of bank-client corruption to increase the lending rate. Due to imperfect information in the lending process, the lending officer may exercise discretion such as in the lending rate, in loan maturity, or in the type of the required collateral (Barth et al. 2009). For example, a bank client may have a vague only idea about the role of client and/or bank industry competition and/or bank risk aversion in getting a loan but the lending officer is aware of these circumstances (Weill 2011). Bribing the bank official in charge of one's loan application to get the application approved can overcome obstacles that originate in general in asymmetric information on the part of the lending officer. Bribery can be beneficial to the bank client even in the absence of such incomplete information if it achieves lending under favorable terms, which is what Solomon (2005) emphasizes, and which terms herein amount to lower lending rates.

The general conclusion is that bank lending corruption is sort of "self-regulatory" in the sense of leaving real economy variables intact or having a minor only effect. This is much more so when as, for instance, Soldatos (2016) suggests, responsible for the corruption in this sector should be held primarily the bank official as a white-collar worker. In this case, there is a one-to-one correspondence between bank-client and bank-official corruption regardless fraud type.

Figure 1: Banking Sector Corruption and Macroeconomics

To be more precise about the macroeconomic implications of these considerations in the banking sector, Figure 1 is adopted as our analytical tool borrowed from the diagrammatical exposition of Bernanke and Blinder (1988) to credit, money, and aggregate demand. i is the bond rate which is inversely related to the lending rate r, Y is national output, curve LM reflects as usually the equilibrium in the money market, but SS curve depicts not only the goods market equilibrium as the traditional IS curve does but equilibrium in the credit market as well. In contrast to IS curve, SS curve acknowledges that loans and bonds are not perfect substitutes and/or that the demand for goods responds to changes in the lending rate. Assuming bank-client only corruption, it raises total demand credit, shifting thereby the SS curve downwards along a fixed LM curve, and raising the lending rate, but reducing i and Y. This tendency is reversed if bank officials are corrupting too, and may be cancelled out altogether leaving rates and Y unchanged.

The benchmark case for the assessment of this interplay is that of the liquidity trap, with a horizontal LM curve, which translates to perfect bond-money substitutability. Under these circumstances, rates remain at their "corruption-free" levels but bank-official corruption cannot counteract the impact on Y from bank-client

corruption at all. As Figure 1 illustrates, this impact is maximum relative to less flat LM curves. Of course, this is a theoretical only eventuality since no one borrows or lends at a liquidity trap. But, the LM curve can be turned horizontal as a result of a zero-lower bound policy, in which case these remarks should be taken into account by the policymaker seriously. In general, there is a single leftward shift of curve SS to position SS′in Figure 1, and the flatter the LM curve becomes, the larger is the impact of this shift on *Y* and the smaller is the effect on rates, making it easier for bank-official corruption to restore pre-corruption rates and output levels. This is important because if one associates increased flatness with deepening recession and hence, with increased riskiness of loans and liquidity concerns of the banks, which reduce subsequently credit supply and shift SS curve to the left, this shift is reinforced by the leftward shift induced by bank-client corruption, but the reinforcement may be taken care of by bank-official corruption.

3. Conclusion

The lesson for anti-lending-corruption effort in the banking sector is that other reasons except for the reason of influencing the real economy might be justifying it unless policy renders the LM curve horizontal. Under circumstances of positively sloped LM curve, the two types of corruption counteract each other, and an anti-corruption campaign is unnecessary; but if it is undertaken for other reasons, it should be targeting symmetrically bank-client plus bank-official corruption. Emphasizing bank-client corruption will be inflationary, because the dominance of bank-official corruption may result in a rightward shift of the curve SS. At the other end, emphasizing bank-official corruption will be recessionary the way just described.

In any case, it seems that the negative effects of bank fraud on growth come rather from bank fraud unrelated to bank lending corruption, namely from cybercrime and money laundering which have become quite sizeable. The Center for Strategic and International Studies (2014) reports that the cost to the global economy from cybercrime ranges between $375 and $575 billion, reaching even 1.6% of the GDP in Germany. And, as the United Nations Office on Drugs and Crime (2017) documents, the situation is even worse in the case of money laundering which amounts to 2%-5% of global GDP. Banks and the broader financial system play an important role in shaping these twilight economy numbers, and it is in this context that bank fraud hurts official economic activity. Some say that twilight economy may in fact be "grease in the wheels of the economy" and others object by characterizing it as "sand in the wheel"; none certainly would disagree that bank fraud is a case in point of the latter viewpoint.

References

Barth, James R. Chen Lin, Ping Lin and Frank M. Song (2009), "Corruption in Bank Lending to Firms: Cross-Country Micro Evidence on the Beneficial Role of Competition and Information Sharing", Journal of Financial Economics, 91(3), 361-388.

Bernanke, Ben S. and Alan S. Blinder (1988), "Credit, Money, and Aggregate Demand", American Economic Review, Papers and Proceedings of the One-Hundredth Annual Meeting of the American Economic Association, 78(2): 435-439.

Center for Strategic and International Studies (2014), Net Losses: Estimating the Global Cost of Cybercrime: Economic impact of cybercrime II; https://www.mcafee.com/us/resources/reports/rp-economic-impact-cybercrime2.pdf

Goel, Rajeev K. and Iftekhar Hasan (2011), "Economy-Wide Corruption and Bad Loans in Banking: International Evidence", Applied Financial Economics, 21(7): 455-461.

Park, Junghee (2012), "Corruption, Soundness of the Banking Sector, and Economic Growth: A Cross-country Study",Journal of International Money and Finance, 31(5): 907-929.

Pricewaterhousecoopers (2014), Threats to the Financial Services Sector; https://www.pwc.com/gx/en/financial-services/publications/assets/pwc-gecs-2014-threats-to-the-financial-services-sector.pdf

Soldatos, Gerasimos T. (2016), "Is the Bureaucrat the Main Responsible for Corruption?",Review of Applied Socio-Economic Research, 12(2): 12-18.

Solomon, Raphael H. (2005), "Pocket Banks and Out-of-Pocket Losses: Links between Corruption and Contagion", Bank of Canada Working Paper 23; http://www.banqueducanada.ca/wp-content/uploads/2010/02/wp05-23.pdf

United Nations Office on Drugs and Crime (2017), Money-Laundering and Globalization; https://www.unodc.org/unodc/en/money-laundering/globalization.html

Weill, Laurent (2011), "Does Corruption Hamper Bank Lending? Macro and Micro Evidence", Empirical Economics, 41(1): 25-42.